ABSTRACT OF THE DISCLOSURE

A system and method for providing process persistence in a virtual machine are described. A virtual persistent heap may be provided. The virtual persistent heap may enable the checkpointing of the state of the computation of a virtual machine, including processes executing within the virtual machine, to a persistent storage such as a disk or flash device for future resumption of the computation from the checkpoint. The Virtual Persistent Heap also may enable the migration of the virtual machine computation states, and thus the migration of executing processes, from one machine to another. The saved state of the virtual machine heap may also provide the ability to restart the virtual machine after a system crash or shutdown to the last saved persistent state, and to thus restart a process that was running within the virtual machine prior to the system crash or shutdown to a checkpointed state of the process stored in the virtual persistent heap. This persistent feature is important for small consumer and appliance devices, as these appliances may be shutdown and restarted often.